6.0 MITIGATION MONITORING PROGRAM

As the Lead Agency under the CEQA, the CSLC is required to adopt a program for reporting or monitoring regarding the implementation of mitigation measures for this project, if it is approved, to ensure that the adopted mitigation measures are implemented as defined in this Draft EIR. This Lead Agency responsibility originates in Public Resources Code Section 21081.6(a) (Findings), and State CEQA Guidelines Sections 15091(d) (Findings) and 15097 (Mitigation Monitoring or Reporting).

6.1 MONITORING AUTHORITY

The purpose of a Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) is to ensure that measures adopted to mitigate or avoid significant impacts are implemented. An MMCRP can be a working guide to facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance and reporting activities of the CSLC and any monitors it may designate.

The CSLC may delegate duties and responsibilities for monitoring to other environmental monitors or consultants as deemed necessary, and some monitoring responsibilities may be assumed by responsible agencies, such as OSPR. The number of monitors assigned to the project will depend on the number of concurrent mitigation measure requirements. The CSLC or its designee(s) will ensure that a qualified person is delegated any duty or responsibility to monitor compliance.

Any mitigation measure study or plan that requires the approval of the CSLC must allow at least 60 days for adequate review time. Other agencies and jurisdictions may require additional review time. It is the responsibility of the environmental monitor assigned to each spread to ensure that appropriate agency reviews and approvals are obtained.

The CSLC or its designee will also ensure that any deviation from the procedures identified under the monitoring program is approved by the CSLC. Any deviation and its correction shall be reported immediately to the CSLC or its designee by the environmental monitor assigned to the Project.

6.2 ENFORCEMENT RESPONSIBILITY

The CSLC is responsible for enforcing the procedures adopted for monitoring through the environmental monitor assigned to the project. Any assigned environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CSLC or its designee.

6.3 MITIGATION COMPLIANCE RESPONSIBILITY

The Applicant is responsible for successfully implementing all the mitigation measures in the MMCRP, and is responsible for assuring that these requirements are met by all of its construction contractors and field personnel. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Other mitigation measures include detailed success criteria. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

6.4 GENERAL MONITORING PROCEDURES

6.4.1 Environmental Monitors

Monitoring procedures will be conducted during continued routine operations as well as accidental spills of the project. The CSLC and the environmental monitor(s) are responsible for integrating the mitigation monitoring procedures in coordination with the Applicant. To oversee the monitoring procedures and to ensure success, the environmental monitor assigned to each mitigation measure must assure that the mitigation monitoring procedures or requirements are adhered to in accordance with time specifications, if given. The environmental monitor is responsible for ensuring that all procedures specified in the monitoring program are followed.

6.4.2 General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the environmental monitor assigned to the project. A monitoring record form will be submitted to the environmental monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the environmental monitor. A checklist will be developed and maintained by the environmental monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The environmental monitor will note any problems that may occur and take appropriate action to rectify the problems.

6.4.3 Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CSLC or its designee on request.

6.5 MITIGATION MONITORING TABLE

The following sections present the mitigation monitoring tables for the project. Each table lists the following information, by column:

- Impact (impact number, title, and impact class);
- Mitigation Measure (full text of the measure is presented);
- Monitoring/reporting action (the action to be taken by the monitor or Lead Agency);
- Effectiveness criteria (how the agency can know if the measure is effective);
- Responsible agency; and
- Timing (before, during, or after construction; during operation, etc.).

Table 6-1
Mitigation Monitoring Program – Operational Safety/Risk of Upset

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
OS-3: Shell's response capability for containment of spills during transfer operations would be adverse and significant for spills greater than 50 bbls, and range from spills that can be contained during first response efforts with rapid cleanup (Class II), to those complex spills that result in a significant impact (Class I) with residual effects after mitigation.	**OS-3a:** Provide mooring quick release devices that shall be able to be activated within 60 seconds. These devices shall be capable of being engaged by, in addition to the manual release mechanism, an electric/push button release mechanism and by a remotely-operated release mechanism. These measures would allow a vessel to leave the Shell Terminal as quickly as possible in the event of an emergency (fire, accident, or tsunami that could lead to a spill) that could impact the Shell Terminal or the vessel.	CSLC monitor to observe devices after installation.	Reduces potential for damages and spills**.** In the event of an emergency, the Shell Terminal will able to quickly release a vessel to prevent spread of oil.	CSLC	Within 12 months of lease implementation.
	OS-3b: Install devices to continuously monitor moored vessels' movements. The devices shall monitor for serge, sway, and heave in real time, in the control room during all transfer operations. An alarm system (visual and sound) that incorporates communication to the control-building operator shall also be a part of the system.	CSLC monitor to observe devices after installation.	Reduces potential for damages and spills**.**	CSLC	Within 12 months of lease implementation.
	OS-3c: Install AAS at the Shell Terminal to prevent damage to the pier and/or vessel during docking operations. Prior to implementing this measure, Shell shall consult with the SFBBP, the USCG, and the staff of the CSLC and provide information that would allow the CSLC to determine, on the basis of such consultations and information regarding the nature, extent and adequacy of the existing berthing system, the most appropriate application and timing of an AAS at the Shell Terminal.	CSLC monitor to observe devices after installation.	Reduces potential for damages and spills**.**	CSLC	Within 12 months of lease implementation.

Table 6-1 (continued)
Mitigation Monitoring Program – Operational Safety/Risk of Upset

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
OS-4: Group V oils have a specific gravity greater than 1 and do not float on the water; instead, they will sink below the surface into the water column or possibly to the bottom. Shell does not identify the types of oils by Group which they handle in their Oil Spill Response Manual nor do they discuss response capabilities by Group. Shell handles asphalt and other products which may be Group V oils. If this is the case, a release of a Group V oil could result in significant impacts (Class I).	**OS-4:** Shell shall not handle Group V oils (oils have a specific gravity greater than 1 and do not float on the water) until it has installed the required Group V oil spill mitigating equipment and incorporated the specific response procedures into its Oil Spill Pollution Prevention and Response Plan. If Shell intends to handle Group V oils, they shall notify the CSLC in writing with submission of the engineering designs of the proposed equipment for MFD review. The restriction shall remain in place until Shell decides to handle Group V oils and has completed the process of implementing the required changes.	Shell shall submit biannual report on status of new technology and equipment to CSLC.	Provides flexibility in lease to update MM and improve response capability.	CSLC	Submit biannual report for life of lease.
OS-6: Residential areas are beyond the hazard footprint boundary; however, there is an extremely small probability that the Martinez Marina could be impacted by a tanker explosion. Because of the extremely low probability of this event, it is concluded that fires and explosions would not cause a public safety risk (Class III). However, a major fire at the Shell Terminal could result in a significant oil spill. Hence, a significant impact has been identified (Class II).	**OS-6a:** Shell shall implement MM OS-3a to provide for quick release devices, capable of being activated within 60 seconds, that would allow a vessel to depart the Shell Terminal quickly in the event of a fire.	See MM OS-3a.	See MM OS-3a.	See MM OS-3a.	See MM OS-3a.
	OS-6b: Shell shall develop a Fire Plan, including a set of procedures, training and drills consistent with Section 3108F2.2 of 24 CCR, Part 2, California Building Code, Chapter 31F. The CSLC shall have final approval of the plan.	Shell shall prepare and submit Fire Plan to CSLC and USCG for review and approval.	Provides planning and procedures for emergency response.	CSLC	Submit to CSLC within 90 days of signing the lease agreement, or by August 6, 2008, whichever comes first.

Table 6-1 (continued)
Mitigation Monitoring Program – Operational Safety/Risk of Upset

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
OS-7: Spills from accidents in the Bay could result in impacts to water quality or biological resources that could be significant adverse (Class II) impacts for those that can be contained during first response efforts; or significant adverse (Class I) impacts that would have residual impacts. While Shell does not have legal responsibility for tankers it does not own, it does have responsibility to participate in improving general response capabilities.	**OS-7a:** Shell shall participate in an analysis to determine the adequacy of the existing VTS in the Bay Area, if such a study is conducted by a Federal, State, or local agency during the life of the lease. Shell shall designate a representative(s) to participate in this analysis toward the upgrade or expansion of the VTS per terms, including financial, to be agreed upon with other study participants.	This shall be implemented as a lease condition. Shell shall demonstrate to CSLC their participation in program strategies to protect sensitive resources.	Reduces potential damage to resources.	CSLC	Life of lease.
	OS-7b: Shell shall respond to any spill from a vessel traveling to or from the wharf, moored at its wharf, related in any way to the wharf, or carrying cargo owned by Shell, as if it were its own, without assuming liability, until such time as the vessel's response organization can take over management of the response actions in a coordinated manner.	This shall be implemented as a lease condition. CSLC monitor to observe emergency actions.	Reduces potential damage to resources.	CSLC	Life of lease.

Table 6-2
Mitigation Monitoring Program – Water Quality

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
WQ-2: Discharge of ballast water that contains harmful microorganisms could impair several of the Project area's beneficial uses, including commercial and sport fishing, estuarine habitat, fish migration, preservation of rare and endangered species, water contact recreation, non-contact water recreation, fish spawning, and wildlife habitat. Therefore discharge of segregated ballast water is determined to have a potentially significant impact to water quality (Class I).	**WQ-2:** Following the adoption of the Mitigation Monitoring Program for the proposed Project, Shell will advise both agents and representatives of shipping companies having control over vessels that have informed Shell of plans to call at the Shell Terminal about the California Marine Invasive Species Act. Shell will ensure that a Questionnaire containing the following questions is provided to the Vessel Operator, and inform the Vessel Operator that the Questionnaire should be completed on behalf of the vessel, by its Captain or authorized representative. The Questionnaire shall solicit the following information: 1. Does the vessel intend to discharge ballast water in San Francisco Bay, the Carquinez Strait or any other location(s) in a Bay waterway on its transit to the Shell Terminal? 2. Does the vessel intend to discharge ballast water at the Shell Terminal?	Shell shall submit the completed questionnaires to the CSLC's Marine Facilities Division's Northern California Field and Sacramento Offices, either electronically or by facsimile, prior to the vessel's entry into San Francisco Bay or in the alternative, at least 24 hours prior to the vessel's arrival at the Shell Terminal.	This measure will provide a tracking mechanism and shall remain in effect until such time that more stringent requirements are developed.	CSLC	Life of lease.

Table 6-2 (continued)
Mitigation Monitoring Program – Water Quality

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	3. Which of the following means specified in the California MISA or Title 2, Division 3, Chapter 1, Article 4.6. has the vessel operator used or intend to use on the current voyage to manage the vessel's ballast water: a mid-ocean exchange (as defined in Section 71200(g)); a near-coastal exchange (as defined in Section 71201(b)); retain all ballast on board; or discharge the ballast water at the same location (as defined in Section 71204.2(c)(2)) where ballast originated, provided ballast water was not mixed with ballast water taken on in an area other than mid-ocean waters?				
WQ-4: Non-segregated ballast water that is sent to the treatment facility may include nonindigenous organisms. Treatment at the facility does not include any specific procedures to prevent organisms that may be in ballast water from being discharged to Bay waters. Discharge of harmful microorganisms would be a significant adverse impact (Class II).	**WQ-4:** Shell shall not discharge any non-segregated ballast water received at the Shell Terminal to San Francisco Bay. If Shell needs to unload non-segregated ballast water, it shall be unloaded into a tanker truck or other suitable wastehandling vehicle and disposed of at an appropriate facility.	This shall be implemented as a lease condition.	Reduces potential damage to resources.	CSLC	Life of lease.

Table 6-2 (continued)
Mitigation Monitoring Program – Water Quality

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
WQ-5: Spills of sanitary wastewater, cargo tank washwater or bilge water could degrade water quality and many spills would constitute chronic long-term degradation of water quality, resulting in a significant adverse impact (Class II).	**WQ-5:** Shell shall prepare a Spill Prevention Plan for ships visiting the Shell Terminal that includes BMPs specifically to prevent leaks and spills during transfer of liquids between vessels and trucks on the Shell Terminal. The Spill Prevention Plan shall be prepared within 6 months of lease implementation and reviewed by the CSLC and be available to the RWQCB.	Shell shall prepare a Spill Prevention Plan for CSLC review and approval, and update as necessary. The plan should be available to the RWQCB.	Aggressive implementation of BMPs to reduce the input of chemicals to the Bay from operations on the wharf would reduce Shell's input of these chemicals.	CSLC	Prepare Spill Prevention Plan within 6 months of lease implementation. Maintain annually for life of lease.
WQ-7: Use by marine vessels of anti-fouling paints containing copper, sodium, zinc, or TBT are considered toxic and present a significant adverse impact to water quality that cannot be mitigated to less than significant (Class I).	**WQ-7:** Following the adoption of the Mitigation Monitoring Program for the proposed Project, Shell will advise both agents representatives of shipping companies having control over or representing vessels that have informed Shell of plans to call at the Shell Terminal about the requirements of the 2008 IMO prohibition of TBT applications to vessel hulls. Following the effective date of the IMO prohibition, Shell will ensure that the Master or authorized representative of vessels intending to call at the Shell Terminal certify that their vessel is in compliance and provide a copy of such certification to the CSLC's Marine Facilities Division's Northern California Field and Sacramento Offices, either electronically or by facsimile, prior to the vessel's entry into San Francisco Bay or in the alternative, at least 24 hours prior to the vessel's arrival at the Shell Terminal.	Shell shall require vessels to document that they have no new TBT applications (per IMO mandate). Documentation shall be kept at Shell, available for CSLC inspection.	Until all TBT is phased out by 2008, vessels with old applications of TBT on their hulls will visit Shell. Shell cannot feasibly require vessels to remove TBT from their hulls (until the IMO mandate is effective). Therefore, until all TBT is gone from vessels using the Shell Terminal, impacts of organotins will remain.	CSLC	Life of lease.

Table 6-2 (continued)
Mitigation Monitoring Program – Water Quality

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
WQ-8: Routine vessel maintenance would have the potential to degrade water quality due to chronic spills during transfers of lubricating oils, resulting in adverse significant (Class II) impacts.	**WQ-8:** MM WQ-5 applies which addresses preparation of a Spill Prevention Plan that includes BMPs for the Shell Terminal.	See MM WQ-5.	See MM WQ-5.	See MM WQ-5.	See MM WQ-5.
WQ-9: Stormwater runoff from the Shell Terminal may contribute pollutants to the Bay in concentrations that may adversely affect some benthic species within the local area, resulting in a significant adverse impact (Class II) to water quality.	**WQ-9** Shell shall prepare a SWPPP specifying BMPs to reduce the input of chemicals to the Bay from the Shell Terminal. Shell shall coordinate with the Regional Water Quality Control Board in developing the SWPPP that Shell shall prepare specifically for the Shell Terminal. BMPs for consideration shall include (at a minimum) (1) conducting all vehicle maintenance on land not over water or marshland, (2) berming all areas on the pier where maintenance activities are being conducted and cleaning up all spilled contaminants before berms are removed, (3) washing the surface of the pier to the extent practical and directing washwater into sumps, (4) maintenance of sumps, and (5) posting signs to educate all workers to the importance of keeping contaminants from entering the Bay.	These BMPs shall de detailed in a SWPPP that Shell shall prepared specifically for the Shell Terminal and submit to CSLC for approval.	Aggressive implementation of BMPs to reduce the input of chemicals to the Bay from operations on the Shell Terminal would reduce Shell's input of these chemicals.	CSLC	Prepare SWPPP within 6 months of lease implementation. Maintain SWPPP, update as necessary for life of lease.

Table 6-2 (continued)
Mitigation Monitoring Program – Water Quality

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
WQ-11: Potential impacts on water quality can result from leaks or spills. Small leaks or spills (less than 50 bbl) related to Shell Terminal operations could result in significant (Class II) impacts, while large spills (greater than 50 bbl) could result in significant adverse impacts (Class I).	**WQ-11:** Implement MM OS-3a through MM OS-3c and MM OS-4 from Operational Safety/Risk of Accidents to provide greater safety in preventing spills and improving response capability.	See MM OS-3a through MM OS-3c and MM OS-4.	See MM OS-3a through MM OS-3c and MM OS-4.	See MM OS-3a through MM OS-3c and MM OS-4.	See MM OS-3a through MM OS-3c and MM OS-4.
WQ-12: A significant impact to water quality (Class I or II) could result from leaks or an accidental spill of crude oil or oil product from a vessel spill along tanker routes either in San Francisco Bay or outer coast waters.	**WQ-12**: Shell shall implement MM OS-7a and MM OS-7b of the Operational Safety/Risk of Accidents Section addressing potential participation in VTS upgrade evaluations, and Shell response actions for spills at or near the Shell Terminal.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.

Table 6-3
Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
BIO-3: Loss of juvenile Dungeness crabs and young Chinook salmon would be a significant, adverse impact because dredging at the time when juveniles are moving through the area could disrupt the migration patterns of these species (Class II). Because of the low volume of material dredged, impacts are adverse, but less than significant impacts (Class III) to plankton, other benthos, other fishes, and birds.	**BIO-3a:** The Shell Terminal shall schedule dredging to avoid the months of May and June when juvenile Dungeness crabs are most abundant in the Project study area. In the event that, due to circumstances beyond lessee's control, dredging must occur in May and June to maintain a depth for safe navigation and operation of the terminal, lessee shall consult with the CDFG regarding the potential effects of such dredging on juvenile Dungeness Crabs and Chinook salmon smolts. Such consultation may occur directly with CDFG personnel in Region 3 or with CDFG personnel during the consideration of lessee's application to the DMMO. If the CDFG concurs with dredging as proposed by the lessee, documentation of which shall be provided to Lessor, it shall be conclusively presumed that juvenile Dungeness Crabs and Chinook salmon smolts will not be significantly affected, and dredging may proceed as provided herein.	Shell shall coordinate with the CSLC and USACE who are the dredging permit holders on the scheduling of dredging operations.	Reduces potential impacts to juvenile Dungeness crabs.	CSLC, CDFG	Prior to dredging.
	BIO-3b: Although chances of entrainment of salmon is relatively low, to protect the salmon, the Shell Terminal shall schedule dredging in June through November when winter and spring run Chinook salmon smolt activity is lowest. See also, consultation with CDFG in BIO-3a, above.	Shell shall coordinate with the CSLC and USACE who are the dredging permit holders on the scheduling of dredging operations.	Reduces potential impacts to Chinook salmon smolt.	CSLC, CDFG	Prior to dredging.

Table 6-3 (continued)
Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
BIO-4: Invasive organisms/introduction of non-indigenous species in ballast water released in the Bay could have significant (Class I) impacts to plankton, benthos, fishes, and birds.	**BIO-4a:** Implement MM WQ-2 in Water Quality, that requires that Shell comply with the California Marine Invasive Species Act and related CSLC requirements and the Ballast Water Management for Control of Non-Indigenous Species Act and fill out a questionnaire to enable the CSLC to better track the management of ballast water. Implement MM WQ-4 requiring segregated ballast water be unloaded to a suitable wastehandling vehicle and disposed of at an appropriate facility rather than being treated at the Shell effluent treatment facility shall apply.	See MM WQ-2 and MM WQ-4.	See MM WQ-2 and MM WQ-4.	See MM WQ-2 and MM WQ-4.	See MM WQ-2 and MM WQ-4.
	BIO-4b: Shell shall participate and assist in funding ongoing and future actions related to invasive species and identified in the October 2005 Delta Smelt Action Plan. The funding support shall be provided to the Pelagic Organism Decline Account or other account identified by the DWR and CDFG, lead Action Plan agencies. The level of funding shall be determined through a cooperative effort between the CSLC and the DWR and the CDFG and shall be based on criteria that establishes Shell's commensurate share of the Plan's invasive species actions costs.	The level of funding shall be determined through the CSLC, DWR, and CDFG as part of these agencies responsibilities under the Delta Smelt Action Plan and CSLC's administration of the MISA.	Contributions will go towards effort in finding a solution to pelagic species decline.	CSLC, CDWR, CDFG	Life of lease.

Table 6-3 (continued)
Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
BIO-6: The impacts of a spill on the biota at or near the Shell Terminal have the potential to spread through Carquinez Strait and into Suisun and San Pablo Bays. Vulnerable biota are plankton, benthos, eelgrass, fishes, marshes, birds, and mammals. Per Operational Safety/Risk of Accidents, small spills at the Shell Terminal (less than 50 bbls) should be able to be contained (Class II impacts). However, spills larger than 50 bbls may not be able to be contained and impacts from large spills are considered to be significant adverse (Class I) impacts.	**BIO-6a:** Implement MM OS-3a-c and MM OS-4 in Operational Safety/Risk of Accidents, to either lower the probability of an oil spill or increase response capability.	See MM OS-3a-c and MM OS-4.	See MM OS-3a-c and MM OS-4.	See MM OS-3a-c and MM OS-4.	See MM OS-3a-c and MM OS-4.
	BIO-6b: Shell shall identify a source of sonic hazing devices to scare birds away from Suisun Shoal and demonstrate to the satisfaction of the CSLC that these devices can be deployed within 3 hours of a spill at the Shell Terminal.	CSLC monitor to observe that Shell has the boom deployment capability.	Reduces potential damages to birds.	CSLC	Within 12 months of lease implementation.
	BIO-6c: When a spill occurs, develop procedures for clean up of any sensitive biological areas contacted by oil, in consultation with biologists from CDFG and USFWS, to avoid damage from clean up activities.	Shell shall provide documentation of damage as soon as possible after a large spill to CSCL, CDFG, and USFWS.	Reduces potential damage from oil spills.	CSLC, CDFG, and USFWS	Documentation of damage as soon as possible after a spill event.
	BIO-6d: Shell shall work with the Natural Resource Damage Assessment (NRDA) Team, if invited, to work as a single team toward determination of the extent of damage and loss of resources, cleanup, restoration and compensation. Shell shall keep the CSLC informed of their participation in such efforts, by providing copies of memos, meeting agendas, or other appropriate documentation, including e-mails.	Shell shall provide documentation of participation to CSLC.	Reduces potential damage and loss of resources from oil spills.	CSLC, NRDA, CDFG	In conjunction with NRDA Team, for life of lease.
BIO-7: A significant impact to biological resources (Class I or II impact) could result from spills of crude oil or product from a vessel in transit along tanker routes either in San Francisco Bay or outer coast waters.	**BIO-7:** Shell shall implement MM OS-7a and MM OS-7b from Operational Safety/Risk of Accidents, addressing potential participation in VTS upgrade evaluations, and Shell response actions for spills at or near the Shell Terminal.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.

Table 6-4
Mitigation Monitoring Program – Commercial and Sports Fisheries

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
FSH-1: Commercial trawling near the Shell Terminal is limited, although the Carquinez Strait shrimp fishery is located in the direct vicinity of the Shell Terminal. Space use impacts on the shrimp fishery are expected to continue to be significant and Class II.	**FSH-1:** Shell officials shall notify shrimp trawlers operating in Carquinez Strait of increases in vessel calls to the Shell Terminal. Shell Terminal officials shall work with shrimp trawlers to avoid conflicts between fishing and normal Shell Terminal operations. In addition, Shell shall inform incoming vessel operators of shrimp trawling activities near the Shell Terminal.	Shell shall demonstrate to CSLC their activities by providing copies of notices.	Avoids conflicts between shrimp trawlers and normal Shell Terminal operations.	CSLC	Annual reporting for life of lease.
FSH-2: Fisheries depend on a healthy environment to survive and flourish. Invasive species discharged from ballast water could impair water quality (Impact WQ-2) and biological resources (Impact BIO-4). These impacts to fisheries resources would impair commercial and sports fishing activities in the Bay and outer coast, resulting in significant adverse impacts (Class I).	**FSH-2a:** Shell shall: (1) carry out MM WQ-2 for segregated ballast water reporting for each vessel and (2) distribute advisories about the California Marine Invasive Species Act and MM BIO-4 for disposal of non-segregated ballast water.	See MM WQ-2 and MM BIO-4.	See MM WQ-2 and MM BIO-4.	See MM WQ-2 and MM BIO-4.	See MM WQ-2 and MM BIO-4.
	FSH-2b: Implement BIO-4b that requires Shell participate and assist in funding ongoing and future actions related to invasive species and identified in the October 2005 Delta Smelt Action Plan (State of California 2005).	The level of funding shall be determined through the CSLC, DWR, and CDFG as part of these agencies responsibilities under the Delta Smelt Action Plan and CSLC's administration of the MISA.	Contributions will go towards effort in finding a solution to pelagic species decline.	CSLC, DWR, CDFG	Life of lease.

Table 6-4 (continued)
Mitigation Monitoring Program – Commercial and Sports Fisheries

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
FSH-4: Over the 30-year lease, Shell may dredge Berths # 3 and # 4 to accommodate more vessels. This dredging is expected to cause significant (Class II) impacts on fish habitat.	**FSH-4:** Implement MM BIO-3a and MM BIO-3b which lay out dredging windows for Dungeness crab and Chinook salmon.	See MM BIO-3a and MM BIO-3b.	See MM BIO-3a and MM BIO-3b.	See MM BIO-3a and MM BIO-3b.	See MM BIO-3a and MM BIO-3b.
FSH-5: Space use conflicts between transiting vessels serving the Shell Terminal and shrimp trawling is expected to be significant, (Class II) due to temporary, but ongoing, blocking of trawl grounds while vessels steam through the Carquinez Strait.	**FSH-5:** Implement MM FSH-1, requiring Shell to notify shrimp trawlers of increased vessel calls to Shell Terminal, and to inform incoming vessels operators of shrimp trawling activities.	See MM FSH-1.	See MM FSH-1.	See MM FSH-1.	See MM FSH-1.
FSH-6: Space use conflicts between transiting vessels serving the Shell Terminal and commercial herring operators could occur resulting in interference or displacement of herring fishing activities. A significant adverse (Class II) impact could result.	**FSH-6:** Shell shall notify the Pacific herring fishery during the herring season of vessel transits. Shell shall also participate in the Pacific herring commercial fishery annual public scoping and hearing process, part of CDFG's annual review of herring commercial fishing regulations. CDFG has the authority to modify or develop regulations to address space use conflicts between the fishery and Shell's operations.	Shell shall demonstrate to CSLC their activities by providing proof of participation.	Reduces Shell-bound vessels potential for interference of transiting vessels and fishing activities.	CSLC, CDFG	Annual reporting for life of lease.
FSH-7: Space use conflicts between sport fisheries in the Bay and transiting vessels serving the Shell Terminal are significant (Class II).	**FSH-7:** Shell officials shall inform incoming vessel operators of sport fishing activities near the Shell Terminal.	Shell shall demonstrate to CSLC their activities by providing copies of notices.	Reduces Shell-bound vessels potential for interference of transiting vessels and sport fishing activities.	CSLC	Annual reporting for life of lease.

Table 6-4 (continued)
Mitigation Monitoring Program – Commercial and Sports Fisheries

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
FSH-9: Shrimp, herring and sport fisheries in central and north San Francisco Bay, San Pablo Bay, Carquinez Strait, Napa River and Honker Bay are at highest risk of spill contamination. Depending on spill location, size and water and weather conditions, areas upstream of the confluence of the Sacramento and San Joaquin rivers may also suffer harm. In addition, the Bay marinas, launch ramps and fishing access points may be threatened, contaminated or closed. Significant adverse impacts (Class I and II) to Bay commercial and sport fisheries would result from oil spill accidents originating at the Shell Terminal or from tankers transiting the coast that service the Shell Terminal.	**FSH-9a:** Implement MM OS-3 and MM OS-4 in Operational Safety/Risk of Accidents, and MM BIO-6b through MM BIO-6d in Biological Resources, to lower the probability of an oil spill and increase response capability.	See MM OS-3, MM OS-4, and MM BIO-6b through MM BIO-6d.	See MM OS-3, MM OS-4, and MM BIO-6b through MM BIO-6d.	See MM OS-3, MM OS-4, and MM BIO-6b through MM BIO-6d.	See MM OS-3, MM OS-4, and MM BIO-6b through MM BIO-6d.
	FSH-9b: Post notices at spill sites, marinas, launch ramps and fishing access points to warn fishing interests of locations of contaminated sites. Notices shall be written in English and Spanish, and be posted in areas most likely to be seen by fishing interests.	CSLC monitor to observe notice postings.	Provides notification to local anglers of potential areas of contamination.	CSLC, RWQCB	Life of lease.
	FSH-9c: If damages to fishing operations or related businesses occur, as a last resort provide financial compensation. Any losses shall be documented as soon as possible after a spill, using methods for determining damages established beforehand. Response for damage losses should include provisions for compensating operators and businesses as soon as possible.	CSLC, OSPR, to be commensurate with Shell's contribution of impacts.	Helps to fund programs for restoration or compensation.	CSLC, OSPR	After a spill event, as warranted.

Table 6-4 (continued)
Mitigation Monitoring Program – Commercial and Sports Fisheries

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	FSH-9d: Following a spill, evaluate the effectiveness of oil spill mitigation measures used to respond to a spill caused at the Shell Terminal by tankers calling at the wharf. Results of the evaluation would be available to public decision-makers to ensure refinement, and if necessary, modification of mitigation measures. Evaluation would be done only after an accident and would include monitoring using scientifically accepted protocols. Costs for the evaluation would be borne by Shell for spills caused at the Shell Terminal. Shell shall contribute to independent public or private organizations or oil spill research. Contributions would be determined in cooperation with the evaluating organizations, agencies, and the CSLC.	Shell to provide input to assist CSLC in evaluation following a spill. Contributions would be determined in cooperation with the evaluating organizations, agencies, and the CSLC.	Helps to develop more effective mitigation measures.	CSLC	After spills for life of lease.
	FSH-9e: Update the Shell Terminal Oil Spill Response Plan to prominently mention Martinez Marina as an oil spill response facility and deployment site and to list the available equipment, supplies and vessels available to Shell which are located at the Marina.	Provide copy of updated plan to CSLC for review and approval.	Provides updated and current information through the Response Plan.	CSLC	Within 6 months of lease implementation.
FSH-10: Significant adverse impacts (Class I and II) to outer coast commercial and sport fisheries could result from oil spill accidents from transiting tankers calling at the Shell Terminal. The level of impact would depend on the size of the spill, location, and fisheries occurring in the area of spread of the spill.	**FSH-10:** Shell shall implement MM OS-7a and MM OS-7b for VTS upgrade participation and to provide immediate spill response near/at the terminal. Shell shall implement MM FSH-9b through FSH-9d to notify fishing interests of possible fishing areas, to help offset the losses to fishing interests and businesses dependent on fishing activities, and to evaluate the effectiveness of mitigation measures.	See MM OS-7a and MM OS-7b, and MM FSH-9a through MM FSH-9d.	See MM OS-7a and MM OS-7b, and MM FSH-9a through MM FSH-9d.	See MM OS-7a and MM OS-7b, and MM FSH-9a through MM FSH-9d.	See MM OS-7a and MM OS-7b, and MM FSH-9a through MM FSH-9d.

Table 6-5
Mitigation Monitoring Program – Land Use

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
LU-3: A number of recreational facilities (designated parks, wildlife preserves, open space, etc.) and recreational uses (nature viewing, boating, fishing, surfing, etc.) are within the potential area that could be impacted by the spread of oil. Shoreline and water-related uses would be disrupted by oil on the shoreline and in the water and could result in significant adverse (Class I and II) impacts.	**LU-3:** Mitigation measures for spills at the Shell Terminal would be the responsibility of Shell Terminal operations. Specific measures are presented in Operational Safety/Risk of Accidents, Water Quality, Biological Resources, and Commercial and Sport Fisheries.	Shell shall implement measures presented in Operational Safety/Risk of Upset; Water Quality; Biological Resources; and Commercial and Sport Fisheries.	The measures provide for enhanced response capability and protection. Impacts may remain significant depending on effectiveness of first response.	As per referenced measures.	As per referenced measures.
LU-4: Spills, from vessels in transit in the shipping lanes, that beach along sensitive land use areas or heavily used areas including recreational areas would limit or preclude such uses and result in significant adverse (Class I or II) impacts, depending on the various characteristics of a spill and its residual effects.	**LU-4:** Mitigation measures for accidents in the shipping lanes would not be Shell Oil Products US responsibility, but would fall to the vessel operator/owner. Shell shall implement MM OS-7a and OS-7b in Operational Safety/Risk of Accidents for VTS upgrade participation and to provide immediate spill response near/at the terminal.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.

Table 6-6
Mitigation Monitoring Program – Noise

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
N-4: To accommodate the increase in vessel traffic over the 30-year lease, the area in and around Berths # 3 and # 4 may require dredging. Noise from any nighttime dredging has the potential to impact receptors at the Martinez Marina (Class II).	**N-4:** Any dredging to be performed within 0.42 mile (2,250 feet) of any sensitive land use or live aboard boat shall be restricted to between the hours of 7:00 a.m. and 10:00 p.m.	This shall be implemented as a lease condition. Shell shall notify CSLC prior to dredging activities.	Requires that dredging occur within allowable local noise ordinance to avoid impacts to nearby receptors.	CSLC	During dredging.

Table 6-7
Mitigation Monitoring Program – Visual Resources/Light and Glare

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
VR-2: The visual impacts of a spill could last for a long period of time, depending on the level of physical impact and cleanup ability, and are considered to be adverse and significant (Class I or II).	**VR-2:** Mitigation measures for oil spill impacts include those measures for contingency planning and response as presented in Operational Safety/Risk of Accidents and Biological Resources.	Shell shall implement measures presented in Operational Safety/Risk of Upset and Biological Resources.	The measures provide for enhanced response capability and protection. Impacts may remain significant depending on effectiveness of first response.	As per referenced measures.	As per referenced measures.
VR-3: Spills, from vessels in transit in the shipping lanes, would change the color and texture of water and shoreline conditions. The level of public sensitivity and expectations of viewers would result in a negative impression of the viewshed and result in significant adverse (Class I or II) impacts, depending on the various characteristics of a spill and its residual effects.	**VR-3:** Mitigation measures for accidents in the shipping lanes would not be Shell's responsibility, but would fall to the vessel operator/owner. Shell shall implement MM OS-7a and OS-7b in Operational Safety/Risk of Accidents for VTS upgrade participation and to provide immediate spill response at/neat the terminal.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.

Table 6-8
Mitigation Monitoring Program – Environmental Justice

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
EJ-1: Overall, Project impacts would affect resources used by the entire Bay community, whether or not they are minority or low-income, and would therefore not have a disproportionate impact on a minority of low-income population. Environmental Justice impacts are considered less than significant (Class III) for all except shrimp and sport fisheries, which is Class II.	**EJ-1:** Should an oil spill from the Shell Terminal extend beyond .5 mile from the terminal and preclude sport fishing activities for more than two days, Shell shall contribute either funds or food stuffs to a local food bank in an amount sufficient, as determined in conjunction with the CSLC, to replace food sources that would have been supplied by fishing activities within the affected areas.	CSLC shall determine the amount of funds or food to be contributed in conjunction with Shell.	Helps to prevent impacts of minority or low-income populations by replacing food sources.	CSLC	After a spill lasting over 2 days.